

Docket No.: 005920 USA/MTCG/PCTRL/JW

PATENT/OFFICIAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

SHANMUGASUNDRAM et al.

Serial No. 09/943,383

Group Art Unit: 2862

Filed: August 31, 2001

Examiner: William David Coleman

For: IN SITU SENSOR BASED CONTROL OF SEMICONDUCTOR PROCESSING  
PROCEDURE

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the document listed on the attached form PTO-1449. It is respectfully requested that this document be expressly considered during the prosecution of this application, and that the document be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This submission does not constitute a representation that a search has been made or that no better art exists and does not constitute an admission or representation that any of the listed documents is material or constitutes prior art. If it should be determined that any of the listed documents does not constitute prior art under the United States law, Applicants reserve the right

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Serial No. 09/943,383

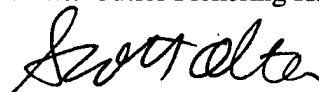
to present to the Office the relevant facts and law regarding the appropriate status of such document.

Applicant petitions for consideration of the enclosed documents by the Examiner. No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this certification, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

The petition fee of \$180.00 pursuant to 37 CFR § 1.17(p) is attached. The Commissioner is authorized to charge any deficiency in any fees pursuant to 37 CFR § 1.17 associated with this communication and to credit any excess payment to Deposit Account No. 08-0219.

Respectfully submitted,

Wilmer Cutler Pickering Hale and Dorr LLP



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Registration No. 32,879

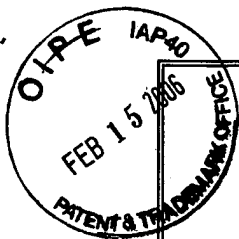
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<p align="center"><b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b></p> <p align="center">(PTO-1449)</p>	<p>ATTY. DOCKET NO. 005920 USA/MTCG/PCTRL/JW</p>	<p>SERIAL NO. 09/943,383</p>
	<p>APPLICANT SHANMUGASUNDRAM et al.</p>	
	<p>FILING DATE August 31, 2001</p>	<p>GROUP 2823</p>
<p align="center"><b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b></p>		
	<p>January 24, 2005. International Preliminary Examination Report from PCT Application No. PCT/US02/19117.</p>	
EXAMINER	DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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INFORMATION DISCLOSURE  
CITATION IN AN  
APPLICATION  
(PTO-1449)

ATTY. DOCKET NO.  
005920  
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APPLICANT  
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FILING DATE  
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GROUP  
2823

## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE

## OTHER ART. (Including Author, Title, Date, Pertinent Pages, Etc.)

	Boning, Duane et al. "Run by Run Control of Chemical-Mechanical Polishing." <i>IEEE Trans.</i> October 1996. Vol. 19, No. 4. pp. 307-314.
	Moyne, James et al. "A Run-to-Run Control Framework for VLSI Manufacturing." <i>Microelectronic Processing '93 Conference Proceedings.</i> September 1993.
	Telfeyan, Roland et al. "Demonstration of a Process-Independent Run-to-Run Controller." <i>187<sup>th</sup> Meeting of the Electrochemical Society.</i> May 1995.
	Moyne, James et al. "A Process-Independent Run-to-Run Controller and Its Application to Chemical-Mechanical Planarization." <i>SEMI/IEEE Adv. Semiconductor Manufacturing Conference.</i> August 15, 1995.
	Moyne, James et al. "Adaptive Extensions to be a Multi-Branch Run-to-Run Controller for Plasma Etching." <i>Journal of Vacuum Science and Technology.</i> 1995.
	Sachs, Emanuel et al. "Process Control System for VLSI Fabrication."
	Chaudhry, Nauman et al. "Active Controller: Utilizing Active Databases for Implementing Multi-Step Control of Semiconductor Manufacturing." <i>University of Michigan.</i> pp. 1 - 24.
	Chaudhry, Nauman et al. "Designing Databases with Fuzzy Data and Rules for Application to Discrete Control." <i>University of Michigan.</i> pp. 1 - 21.
	Chaudhry, Nauman A. et al. "A Design Methodology for Databases with Uncertain Data." <i>University of Michigan.</i> pp. 1 - 14.
	Khan, Kareemullah et al. "Run-to-Run Control of ITO Deposition Process." <i>University of Michigan.</i> pp. 1 - 6.
	Moyne, James et al. "Yield Improvement @ Contact Through Run-to-Run Control."
	Kim, Jiyoun et al. "Gradient and Radial Uniformity Control of a CMP Process Utilizing a Pre- and Post-Measurement Strategy." <i>University of Michigan.</i>
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Applicant(s): **SHANMUGASUNDRAM et al.** Application: **09/943,383** 107262.149 SMA/mgm  
Filing Date: **August 31, 2001** Atty Docket No.: **5920 USA/MTCG/PCTRL/JW**  
Entitled: **In Situ Sensor Based Control of Semiconductor Processing Procedure**

RECEIPT IS ACKNOWLEDGED FOR THE FOLLOWING:

- [X] Supplemental Information Disclosure Statement and Form PTO-1449
- [X] 12 References
- [X] Authorization to charge Deposit Account No. 08-0219 for \$180.00



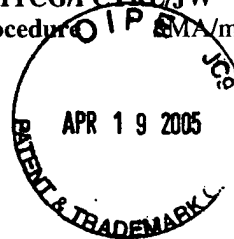
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Applicant(s): **SHANMUGASUNDRAM et al.** Application: **09/943,383** 107262.149  
Filing Date: **August 31, 2001** Atty Docket No.: **5920 USA/MTCG/PCTRI/JW**  
Entitled: **In Situ Sensor Based Control of Semiconductor Processing Procedure** **MA/mgm**

RECEIPT IS ACKNOWLEDGED FOR THE FOLLOWING:

☒ Supplemental Information Disclosure Statement and Form PTO-1449  
☒ 1 Reference



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